Eastface Vegetation Management Project
Silvicultural
Existing Condition

INTRODUCTION

The Eastface analysis area is in the geographical province of the Blue Mountains, approximately 12 miles from La Grande, Oregon. The project area for the proposed action is 47,636 acres; the cumulative effects analysis will include, subwatersheds 17070202010(Baldy Creek-North Fork John Day River), 170601040303 (Jordan Creek), 170502030601(Upper Wolf Creek), 170502030502 (Middle North Powder River), 170601040601 (Upper Ladd Creek), 170601040301 (Upper Beaver Creek), 170502030505 (Lower North Powder River), 170502030503 (Upper Anthony Creek), 170502030504 (Lower Anthony Creek), and 170601040101 (Tanner Gulch-Grande Ronde River). Approximately 1100 acres of Bureau of Land Mangagement (BLM) is also part of the project area. The BLM will mangage their land and the remaining acres are managed by the Wallowa-Whitman National Forest, La Grande Ranger District.

MANAGEMENT DIRECTIVES

The Eastface project area is managed according to the Wallowa-Whitman National Forest's Land and Resource Management Plan (1990). The management areas (MA) are: MA 1 (timber production), MA 3 (wildlife/timber), MA 3A (wildlife/timber summer range), MA 4 (wilderness), MA 6 (backcountry), MA 15 (old-growth preservation) and MA16(admin and recreation sites retention).

In May 1994, Regional Forester, John Lowe, issued a decision notice for the Continuation of Interim Management Direction Establishing Riparian, Ecosystem and Wildlife Standards for Timber Sales (screens). This decision notice amends all the forest plans east of the Cascade Mountains in relation to the designing of timber sales in riparian areas and late and old structural forest stands. The Eastface project is a proposed harvest operation with green volume being removed. All three screens (riparian, ecosystem and wildlife screen) must be applied.

BACKGROUND: Insects and Management Activities

Insects: The degree of damage from insects is variable and depends upon factors such as species composition, tree size, tree vigor and occurrence of root/bole decays. Mountain Pine Beetle, Western Pine Beetle, Spruce Beetle, Fir Engraver, Western Spruce Budworm, and Balsam Wooly Adgelid populations have shown an increase in activity the last few years. Stands have pockets of beetle kill and recent attacks.

Diseases: Tree diseases cause reduced growth rates, mortality, defect and decay. Incidence and severity of diseases in the Eastface area are a combination of vegetation, successional stage, and disturbance (Schmitt, 1994). Major diseases in the area include root diseases, indian paint fungus, lodgepole cankers, heart rots and dwarf mistletoes. Infected trees can have a reduction in growth, topkill, premature mortality, predisposition to other biotic agents and predisposition to crown fire (Schmitt, 1996). Overstocked stand conditions increase the risk of further loss of tree species.

Management Activities: The Eastface analysis area is mostly roaded and has been harvested several times in the past, the most recent harvests were Black Bark Salvage, Dutch/Wolf, High Ham, Isham, Cutty Sark, and Wolf LP. The private land in the planning area has been harvested within the last few years.

The Eastface Planning Area consists of cold upland forest which includes sub-alpine fir/grouse huckleberry, lodgepole/ grouse huckleberry, and grand fir/grouse huckleberry plant associations (37% of forested area), moist upland forest which includes lodgepole/ big huckleberry, sub-alpine fir/ big huckleberry, grand fir/twinflower and grand fir/big huckleberry plant associations (43% of forested area) and dry upland forest including Douglas-fir/elk sedge, Douglas-fir/pinegrass, ponderosa pine/bitterbrush, and grand fir/pinegrass plant associations (20% of forested area).

COLD UPLAND FOREST GROUP

These sites are low to moderate in productivity. This group consists of approximately 16,000 acres in the planning area and is 36% of the forested acres. Stands can be characterized by cover types which is a classification of existing vegetation. Currently, grand fir, subalpine fir and spruce, and lodgepole pine cover types make up the majority for this group. Western larch and Douglas-fir cover types are below the range of variability (Table 1). Stands proposed for treatment have: 1) considerable percentage of existing basal area in "non-releasable" suppressed and intermediate trees, 2) stand density index (SDI) values which exceed the lower management zone (LMZ) levels, or 3) tree species occurrence is outside the range of variability. Existing suppressed and intermediate crown class trees within stands proposed for density management exhibit crown ratios below 30 percent. In addition, roughly 10-20 percent of the codominant trees also display poor crown ratios. Mortality in many stands is less than 10% of the overstory. Insects and diseases observed in these stands include adelgids, several root rots, mountain pine beetle, indian paint fungus, fir engraver, and mistletoes. Stand ages for overstory greater than 9" diameter breast height (DBH) is 80 to 350 years old. Stand cover ranges from 15% to 66% with an average of 36%. This group is very susceptible to fires and can sustain stand replacement fires. Lodgepole, which in many areas is a major component of this type, is also susceptible to mountain pine beetle infestation which can become a serious problem. Understory re-iniation structure (45%) dominates in this type. Many of these stands would remain in a dense, low vigor condition until a disturbance occurs. There are 16,055 (37% of forested acres) acres of this type in the planning area.

Table 1: Range of variation information for species composition (vegetation cover type), expressed as percentages.

Vegetation Cover Type	Range of variation for cover types (percentages) (From Powell, 2012)	Existing range of cover types (percentages)
Ponderosa Pine	0-5	1
Douglas-fir	5-15	4
Western Larch	5-15	2
Lodgepole Pine	25-45	40
Grand Fir	5-15	32
Subalpine fir and spruce	15-35	21

MOIST UPLAND FOREST GROUP

These sites are the most productive in the Blue Mountains. The degree of damage from insects is variable and depends upon factors such as species composition, tree size, tree vigor and occurrence of root/bole decays. Species composition in these stands are a mix of species and size classes with grand fir, englemann spruce, western larch, Douglas-Fir and lodgepole pine dominating the composition with poles to large sized diameter trees. Understories are dominated by grand fir and lodgepole with twinflower and big huckleberry. Currently grand fir is the predominate cover type in these stands (Table 2). Insects and diseases observed in these stands include several root rots, mountain pine beetle, indian paint fungus, fir engraver, and mistletoes. Mortality in many stands is less than 10% of the overstory with many of the intermediate tree class exhibiting live crown ratios less then 20%. Stand ages range from 65 to 350 years old for trees greater than 9" DBH. Stand cover ranges from 19% to 67% with an average of 35%. There are approximately 2-4 snags per acre of variable species and sizes. Current structure in this type is dominated by the understory re-iniation (59%) stage. There are 19,033 (43% of forested acres) acres of this type in the planning area.

Table 2: Range of variation information for species composition (vegetation cover type), expressed as percentages.

Vegetation Cover Type	Range of variation for cover types (percentages) (From Powell, 2012)	Existing range of cover types (percentages)
Ponderosa Pine	5-15	2
Douglas-fir	15-30	5
Western Larch	10-30	15
Lodgepole Pine	25-45	16
Grand Fir	15-30	52
Subalpine fir and spruce	1-10	10

DRY UPLAND FOREST GROUP

These sites are low to moderate in productivity. Past activities and fire exclusion have led to an increase in the understory components of these stands, which has lead to an increase of ladder fuels into the larger trees. Historically, many of these stands were dominated by shade intolerant species maintained by fire. Species composition in these stands are a mix of ponderosa pine and Douglas-fir with some grand fir and western larch of poles to large sized trees. Understories are dominated by seedlings and saplings mostly of grand fir and Douglas-fir with pinegrass and sedges. Currently Douglas-fir is the predominate cover type in these stands (Table 3). Mortality in most stands is approximately 6% of the overstory. Stand ages range from 59 to 350 years old for trees greater than 9" DBH. Stand cover ranges from 20% to 62% with an average of 38%. There are approximately 2-3 snags per acre of variable species and sizes. Current structure in this group is dominated by the understory re-iniation (51%) stage. There are 8,903 (20% of the forested acres) acres of this type in the planning area.

Table 3: Range of variation information for species composition (vegetation cover type), expressed as percentages.

Vegetation Cover Type	Range of variation for cover types (percentages) (From Powell, 2012)	Existing range of cover types (percentages)
Ponderosa Pine	50-80	19
Douglas-fir	5-20	45
Western Larch	1-10	8
Lodgepole Pine	0	10
Grand Fir	1-10	16
Subalpine fir and spruce	0	1
Unknown	--	1

DESIRED FUTURE CONDITION

The desired future condition is to have a mosaic of structural stages across the Eastface area within the historical range of variation. The tree stocking and species composition will be consistent with historical disturbance patterns and managed at levels to prevent catastrophic insect and disease outbreaks. The stands will be of different ages and dispersed to provide a mixture of forage and thermal cover areas for big-game, and late-seral structures for old-growth dependent species. Silviculture treatments will create more heterogenous stand structures that enhances resiliency to future disturbance. Large diameter (greater than 20 inches) down woody debris and standing snags will be more evident. Small diameter standing and down woody debris will be managed at levels to provide for soil productivity and decrease the risk of high-intensity fires.

CONCLUSION

The harvest, cultural, and post-sale activities will allow for an opportunity to maintain or increase the structural diversity in the analysis area and achieve the desired future condition. Silvicultural prescriptions result in maintaining or regenerating a mixture of tree species appropriate for each site, as well as, managing density levels at appropriate numbers.

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